

### REMARKS

The Official Action summary sheet still refers to claims 1-35, as does paragraph number 1 on the top of page 2 of the Official Action. Applicant again requests the Examiner to enter the PCT Article 19 amendment that amended claims 1-35 to claims 1-27 prior to entry into the U.S. national phase. The PCT Article 19 claims are the claims that entered the national phase. Applicant respectfully requests entry of the claims as amended in the PCT Article 19 amendment for the purposes of clearly identifying the claims for the purposes of appeal.

In this regard, and as stated in Applicant's response of 26<sup>th</sup> August, 2009, the listing to the claims represents the claims as amended in the PCT article 19 amendment. As such, references to claims numbers below refer to the claims as amended in the PCT article 19 amendment unless specifically noted otherwise.

Reconsideration of this application is respectfully requested. Claims 1-27 are in this application and are presented for the Examiner's consideration in view of the following comments.

Claims 1-27 have been rejected under 35 U.S.C. §103(a) as being unpatentable over WO 02/089371 (*Chen*) in view of U.S. Patent No. 7,499,507 issued March 3, 2009 to Jaffe et al. (*Jaffe*). Applicant still respectfully disagrees.

Respectfully, the Examiner's interpretation of *Chen* is wrong. For example, the Examiner points to claim 6 of *Chen*, which states.

6. A receiver system for demodulating and decoding layered transmission signals, comprising:
  - a first demodulator (404) for demodulating a first carrier of a first layer (100) of a received signal;
  - a first layer decoder (402) for decoding the first layer (100) producing first symbols (102) for a first layer transport;
  - a remodulator (406) for receiving the first signal symbols (102) and producing a first layer signal (100);
  - a subtractor (412) for subtracting the first layer signal (100) from the received signal and producing a second layer signal (106);
  - a second layer demodulator (410) receiving the second layer signal (106) for demodulating a second carrier of a second layer and producing a second demodulator output; and

a second layer decoder (408) receiving the second demodulator output and decoding the second layer producing second signal symbols (104) for a second layer transport.

Chen, p. 14, emphasis added.

Nowhere does claim 6 of Chen refer to recovering a carrier – let alone recovering a carrier as claimed by Applicant. In fact, the language in claim 6 is clear. The first demodulator demodulates a first carrier, and the second layer demodulator demodulates a second carrier.

The Examiner also refer to p. 2, lns. 5-15 of Chen, which states:

Signals, systems and methods for transmitting and receiving non-coherent layered modulation for digital signals are presented. For example, a layered signal for transmitting data, comprises a first signal layer including a first carrier and first signal symbols for a first digital signal transmission and a second signal layer including a second carrier and second signal symbols for a second signal transmission disposed on the first signal layer, wherein the layered signal has the first carrier demodulated and first layer decoded to produce the first signal symbols for a first layer transport, the first signal symbols are remodulated and subtracted from the layered signal to produce the second signal layer, and the second signal layer has the second carrier demodulated and decoded to produce the second signal symbols for a second layer transport.

Chen, p. 2, lns. 5-15, emphasis added.

Again, nowhere does this passage from Chen describe, or even suggest, recovering a carrier – let alone recovering a carrier as claimed by Applicant. The language in this portion of Chen is clear – the first carrier is demodulated and the second carrier is demodulated.

Finally, the Examiner refers to p. 7, ln. 23 to p. 10, ln. 18 and FIGs. 4A and 4B of Chen. The Examiner's statement that Chen "discloses recovering a carrier of the lower layer (element 410) as a function of decisions with respect to a first layer (output of element 402)" is, respectfully, incorrect. FIG. 4B of *Chen* reproduced below.

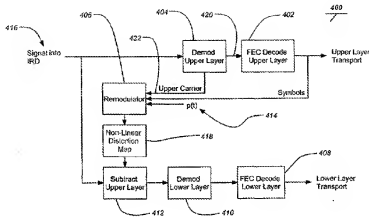


FIG. 4B

Demodulator 410 of Chen demodulates the carrier. (Chen, p. 8, ln. 17-18.) Nowhere does FIG. 4B of Chen – or the specification of Chen – describe, or suggest, recovering a carrier as claimed by Applicant. As Applicant noted in Applicant’s previous response, the soft decisions, i.e., the recovered symbols are provided by element 402 of FIG. 4B of *Chen*. However, the upper carrier is provided by element 404 without regard to the symbols provided by element 402. As such, *Chen* does not describe, or show, using soft decisions to generate a carrier that is then used to recover the other layer as claimed by Applicant.

Nor does *Jaffe* remedy this defect in *Chen*. All *Jaffe* describes is use of a Viterbi decoder for recovering data. Nowhere does *Jaffe* describe, or suggest, using soft decisions to generate a carrier as claimed by Applicant.

Finally, even if one combined Chen and *Jaffe* – there is no motivation to further modify this combination to yield Applicant’s claimed invention. Nowhere do either Chen or *Jaffe* describe, or suggest, the problem identified and solved by Applicant.

In view of the above, the combination of Chen and *Jaffe* does not yield Applicant’s claimed invention. Whether Chen uses a Viterbi decoder to recover data is not Applicant’s claimed invention. Applicant’s claimed invention is directed to using soft decisions to generate a carrier, which is then used to recover a different layer of the signal. Applicant respectfully submits that independent claims 1, 10, 16 and 19 are

patentable over *Chen* in view of *Jaffe*. As such, respective dependent claims 2-9, 11-15, 17-18 and 20-27, are also in condition for allowance.

As it is believed that all of the objections set forth in the Official Action have been fully met, favorable reconsideration and allowance are earnestly solicited. If, however, for any reason the Examiner does not believe that such action can be taken at this time, it is respectfully requested that the Examiner telephone Applicant's attorney in order to overcome any additional objections that the Examiner might have.

If there are any additional charges in connection with this requested amendment, the Examiner is authorized to charge Deposit Account No. 07-0832 therefor.

Respectfully submitted  
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